Proposal for

Mono County
EMS SYSTEM EVALUATION

452 Old Mammoth Road
Sierra Center Mall, 3rd Floor
Mammoth Lakes, CA 93546

FITCH
& ASSOCIATES

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FITCH
& ASSOCIATES

September 19, 2011

Jim Arkens
Chief Administrative Officer
Mono County
452 Old Mammoth Road
Sierra Center Mall, 3rd Floor
Mammoth Lakes, CA 93546

Dear Mr. Arkens:

Fitch & Associates is pleased to submit this proposal to the County of Mono for the consulting project to conduct a comprehensive evaluation of the Mono County EMS System. The proposed activities are designed to provide the County with comprehensive assessment of its out-of-hospital and emergency medical services system. The goal of the project is to identify the roles, responsibilities, and structure for EMS to respond to the changes in healthcare. The project it to focus on achieving the greatest possible benefits to the patients and the community while ensuring a balance of quality and value.

We have submitted detailed work plan that demonstrates our experience and familiarity with these types of projects. Fitch & Associates, LLC has conducted numerous similar projects throughout North America and specifically in California

I will by your contact and will function as the Project Manager if we are to receive the award. I can be reached at:

Richard Keller, Partner
Fitch & Associates, LLC
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(816) 431-2600
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If you have any questions regarding our proposal, please contact me. We appreciate the opportunity to work in Mono County and thank you in advance for your consideration.

Sincerely,

Richard A. Keller,
Partner

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EXECUTIVE SUMMARY

Fitch & Associates has designed this proposal to address the complexity and expanse of Mono County's EMS system. The project design is straight forward:

- Assess the current system to know what services are being delivered and at what performance levels.
- Analyze the system's funding mechanisms, sources of revenue, allocations, and expenditures.
- Incorporate extensive stakeholder input into defining expectations.
- Communicate and educate decision-makers on the existing system and desired future state.

These activities require an extensive effort from the County, stakeholders, and the consulting team. We have proposed a team unsurpassed in its experience and expertise with EMS system design specifically in California. The Consultant Project Director was the Project Director for the Napa and Contra Costa Counties system design and procurement processes resulting in the current integrated EMS systems. This prior experience gives us a solid perspective on the unique characteristics of California EMS systems.

Effective system design does not take place in a consultant's office. The consultant can only capitalize and facilitate the gathering and distribution of information from the real experts—those who are guiding and working in the Mono EMS system each and every day. The success of our system designs is based on capturing local knowledge and collaborating with local stakeholders and decision-makers in defining expectations and performance requirements. This collaborative effort soliciting input from a wide variety of groups and individuals is our commitment to the County of Mono.

The goal of this project is to provide the County with high quality EMS that benefits the patient's receiving care. The system should be sustainable over the long-term and include performance requirements so that the system continually improves. High quality clinical care, responsiveness, and support for a quality workforce should be key characteristics of the EMS system. At the same time, it is necessary to ensure that the County is getting good value for its resource commitments.

This proposal is designed to deliver a high quality, cost effective, implementable, and sustainable EMS system for the foreseeable future.

SECTION I. THE ISSUES

The Medicine

The County has recognized the changing environment impacting the provision of emergency medical services (EMS) and out-of-hospital care. Recent research has shifted the emphasis of EMS systems from focusing on discrete performance activities to adopting a systems approach to specific patient conditions. It is recognized that the overall goal of improved patient outcome is dependent upon the coordinated efforts of multiple caregivers, not just the first responders and ambulance personnel. Significant advancements have been made in the treatment of acute myocardial infarctions through the STEMI (ST-Segment Elevation Myocardial Infarction) programs that embrace early recognition by pre-hospital personnel and a rapid coordinated treatment at designated hospitals. Similar systems approaches have been credited with improved outcome for trauma patients and are envisioned for patients suffering from strokes.

A number of other advancements have been made that positively impact the patient and include pain mitigation, continuous positive airway pressure (CPAP), decreasing intrathoracic pressure with CPR, hypothermia treatment, and other promising interventions and technology.

The efficacy of short response times and early advanced life support (ALS) has been deemphasized as the result of research which questions the value of these measures for positive patient outcomes. Rather, EMS systems have increased efforts to expand system-wide public access defibrillation and bystander CPR which have demonstrated positive patient outcome results.

It has been recognized that EMS systems have the infrastructure, competence, and capability to fulfill a more important role than solely the provisions of emergency medical response, treatment and transport. Prevention efforts, early identification of symptoms, and community education programs have effectively reduced the incidence of some acute emergency medical events. A wide variety of programs have demonstrated positive results including programs for asthma patients, fall prevention, car seat training, encouraging use of helmets, and early recognition of signs of heart attack or stroke.

The direction of EMS is clearly pointed toward a comprehensive systems approach to deal with the ill and injured. To be effective, the continuum of service providers must be involved, coordinated, and effective in the delivery of the patient-focused care and treatment required to save lives and improve patient quality of life.

The Challenges

EMS systems continue to evolve and evidence-based protocols, policies and procedures are having demonstrable positive effects on patient outcomes. But, these systems are severely challenged by old limiting designs, too few resources, turf battles, politics, and rapid changes in the healthcare delivery systems in America.

EMS and out-of-hospital healthcare activities are funded primarily by user fees and public tax support. Each of these funding sources is being challenged. Primary payers of user fees are government healthcare programs (Medicare and MediCal) and insurance companies. Government payers only pay for the patient transportation component and then only to select destinations (i.e. hospitals). California has seen continuous decreases in Medicare reimbursement since the implementation of Medicare ambulance fee schedule in 2002 and now only realizes limited increases that fail to cover cost increases or even keep up with inflation.

The financial crisis in California has decreased MediCal reimbursement and is expected to further cut funding for ambulance services.

On average, neither Medicare nor MediCal is reimbursing the cost of providing ambulance services provided to beneficiaries and recipients.

Health insurance companies are increasing pressure to reduce their payments for ambulance services, particularly in California where the average ambulance rates are higher than other areas of the country, averaging more than $1,500 per transport in many communities.

Fundamental changes in healthcare delivery are occurring. The passage of healthcare reform has introduced changes in the means and methods that healthcare will be provided and compensated. The push toward accountable care organizations (ACO) the creation of insurance exchanges and the continued efforts of government healthcare payers to expand value-based purchasing will dramatically change how healthcare services and EMS are delivered and paid for.

These issues, and others, must be considered in light of the severe financial pressures on federal, state, and local jurisdictions. Communities have decreased public safety funding resulting in cuts to fire and police personnel. Lack of funding limits progress and many jurisdictions have had to cut services provided to its constituents.

Our Response

The response required to address the issues and challenges to modern EMS systems is clear. System leaders must consider making fundamental changes to the roles and deliverables expected from EMS. There must be a commitment to expand the definition of EMS to encompass the new role as healthcare system integrator embracing responsibilities for public health and linking patients to the most effective care providers.

Consider the impact of decades of fire prevention efforts by fire agencies on a national basis. These focused initiatives including prevention, increasing public education and awareness, and the implementation and enforcement of stringent building codes have dramatically reduced the incidence of structure fires. Out-of-hospital and emergency medical care activities delivered by EMS systems can be redirected to accomplish similar results in improving patient outcomes and quality of life.

A recent program has been initiated with the goal of decreasing death due to cardiac disease by 20% in five years with an expectation of further reductions in the future. It represents a holistic approach including patient education and behavior modification, early recognition of disease indicators, new breakthrough medications, increasing bystander CPR and public access defibrillation, and the treatment continuum for acute events provided by bystanders, first responders, EMS, and definitive care facilities.

Other patient conditions are prime targets for coordinated efforts to create positive results. These may include trauma being addressed with coordinated prevention activities and a comprehensive trauma system response to acute events. Reduction of long-term effects of stroke and the reduction of acute asthma attacks are potential targets for coordinated action.

With this perspective, it will be necessary for EMS systems to examine and modify its fundamental roles and responsibilities. In order to accomplish such a transformation the system leaders have to embrace a new vision and challenge all aspects of the status quo.

The proposed scope of work for this project embraces the concept of eliminating preconceived ideas and continuation of the status quo in order to design and develop an out-of-hospital and emergency response system that focuses on the community, its patients, and those activities that have a proven positive impact on health and wellness of the community members.

SECTION II. OUR APPROACH

Project Methodology

Success in this project will be measured not only by the quality of the analysis but by the experience and skills of those involved to build consensus around the methodology. Our proposed approach objectively blends national experts with local resources. We will work collaboratively with local leaders to take full advantage of available inputs and achieve the desired outcomes. The methodology we utilize builds support for recommendations throughout the project in a manner that facilitates implementation.

Comprehensive Review Framework for EMS Systems

We propose to use a comprehensive review framework that has been customized to the unique requirements of Emergency Medical Services. Gaining a complete understanding of the system components at the outset facilitates developing customized options.

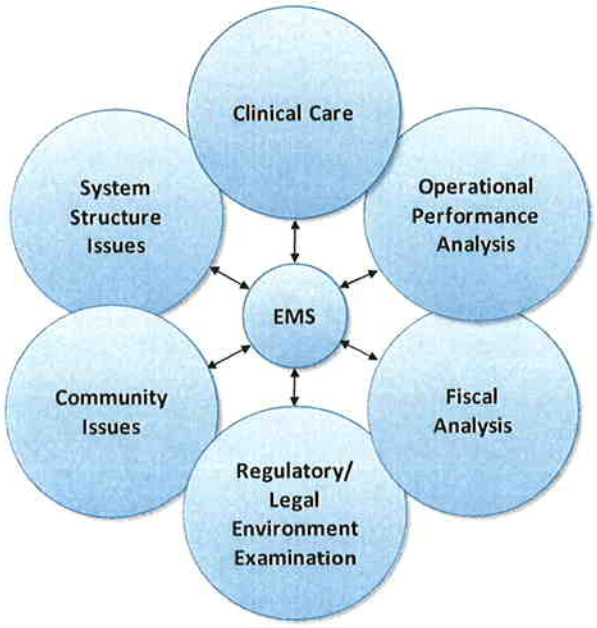
The review methodology used by our team has been developed and refined over more than 25 years of system evaluation. The process evolved from Value for Money Programmatic Auditing used by the Comptroller General of Canada and has been customized to address EMS systems.

EMS, as an industry, has failed to adequately study and document evidence to guide system design and operational practices. In the absence of industry-accepted standards for evaluating and comparing EMS systems, the study will analyze multiple variables drawn from diverse sources, which include:

- Malcolm Baldrige National Quality Standards,
- Commission on Accreditation of Ambulance Service (CAAS) standards,
- Commission on the Accreditation of Medical Transport Services (CAMTS) standards,
- National Fire Protection Association (NFPA) standards,
- National Academies of Emergency Dispatch (NAED) standards,
- American Ambulance Association (AAA) EMS: Structured for Quality guidebook, and
- Institute of Medicine (IOM) findings in the EMS at the Crossroads report.

The consulting team will also examine multiple aspects of the EMS System to ensure that recommendations are best suited to improve EMS in Mono County.

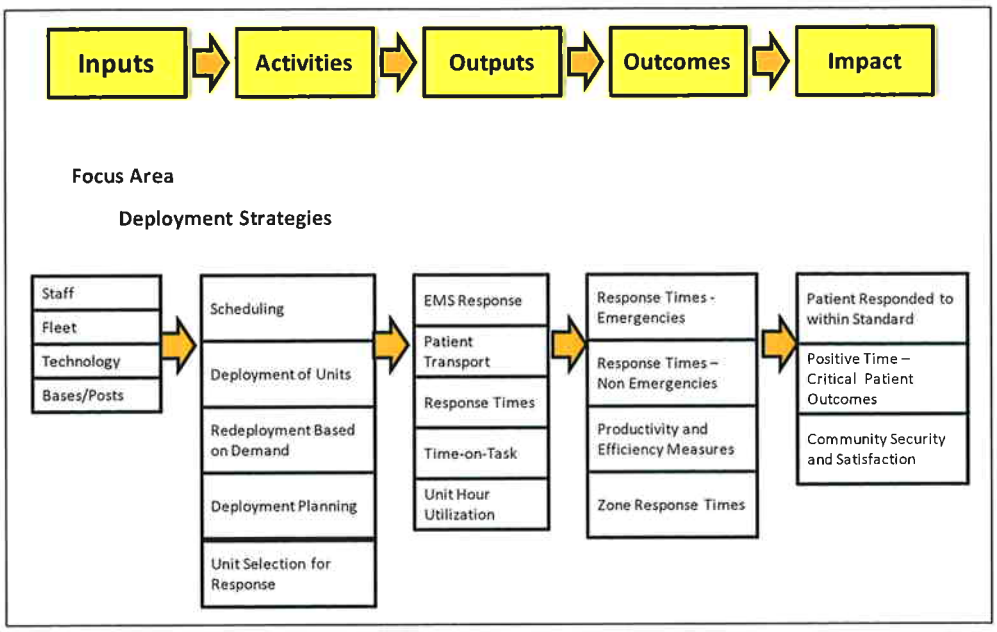
Figure 1. Fitch & Associates' EMS System Evaluation Model



Our industry specific framework incorporates six major areas of inquiry including clinical care, operational performance analysis, fiscal analysis, regulatory/legal environment examination, community issues and system structure issues. The framework acknowledges that state, regional and local government entities, public safety agencies, medical facilities, physicians, nurses, paramedics, fire fighters, insurers, tax-payers and many others must work together in order to provide the highest possible level of quality within available resources. The following points present the elements that are typically covered within the course of a review.

This tried and true process is coupled with the Logic Model Analysis (Figure 2) for the study. We will utilize Logic Model Analysis processes for the assessment of the Mono County's EMS system as well as using the process for designing the study itself.

Figure 2. Logical Model Analysis



The logic model quantifies inputs utilized in accomplishing planned activities. These activities result in outputs, outcomes, and ultimately the impact on the County and the community. An example of how we will utilize this process is provided above. One of the focus areas for this project will be Deployment Strategies. The diagram identifies the inputs (staff, vehicles, technology, etc.) that are used in operational activities of the service (deployment, selecting unit for response, etc.). Examples of outputs are EMS responses and completed calls. The outcomes include response time performance and the ultimate impact is hoped to be improved patient outcome and community security.

Each project and focus area will be developed and accomplished using the rigors of Logic Model Analysis.

The following points present the elements that are typically covered within the course of a comprehensive EMS system review. Additional elements are added as the project requires.

Clinical Care

- Protocol development process.
- Quality of clinical care (e.g., as measured by reasonable conformance to protocol).
- Base hospital activities.
- Level of service provided by various organizations.
- EMS-hospital handoffs.
- Training and continuing education.
- Physician involvement.
- Scopes of practice.
- Medical audit/review process & use of findings.
- Clinical research.
- Medical protocols and procedures.
- Quality improvement and measurement systems.
- Medical direction and control issues.
- Patient/family-provider interaction.
- First responder issues.
- Certification and licensure requirements.
- Trauma systems.
- Medical dispatch procedures.
- Specialty care centers.

Operational Performance Analysis Utilization rates

- Deployment plans.
- Response times.
- Medical dispatch and communications.
- Receiving hospital system.
- Performance requirements and compliance.
- Workforce issues.
- Organizational structure and human resource leadership.
- Equipment and supply issues.
- Policies and procedures.
- Vehicles.

Fiscal Analysis

- System funding.
- Reimbursement issues.
- Cost avoidance opportunities.
- Funding allocation.
- Technology upgrade costs.
- Liability issues.
- Other fiscal issues.
- Cost-benefit analysis of various functions.
- User fee structure.
- Equipment capitalization.
- Funding sources.
- Industry financial reports and models.

Regulatory/Legal Environment Examination

- Contracts.
- Accountability.
- State legislation and regulations.
- Current EMS plans.
- Agreements.
- Regulations and ordinances.
- Other communities' experience.
- Medicare & HIPAA compliance.

Community Issues

- Community involvement.
- Expectations.
- Education and prevention activities.
- Awareness.
- Historical satisfaction levels.
- Unique community characteristics

System Structure Issues

- Legislative issues.
- System management and services.
- Inter-agency coordination.
- Organizational structure options.
- Legal and administrative authority.
- Service description and relationships.
- Potential enhancements inventory.
- System design issues.
- Leadership and organizational structure.

Benchmarking

Evaluation of the EMS system is most valid when viewed with an industry-wide perspective. It is not only important to identify performance levels of a specific system, but to compare the attributes of a system with the best practices in the industry. We have developed metrics to define the attributes of an EMS system. These 74 attributes have been used to compare high value systems throughout North America. Table 1 is an example of EMS metrics developed by Fitch & Associates to evaluate and compare EMS systems

Table 1. System Comparison Metrics

Sample Criteria
Accreditation
1. NAED Accredited Center of Excellence (ACE)
2. CAAS Accredited
3. CAMTS Accredited
4. Other Accreditations
Public Education
5. Provides training related to safety, injury prevention, or public health/medical intervention
Communications
6. Public Access via 911
7. Protocol-Based Dispatch
8. EMD Certification
9. Bio-surveillance monitoring/reporting
Response Time Reliability
10. Measure response times
11. Response time clock begins at T2 or T3 & ends at T7
12. Response time measured in Fractile/Percentile
13. Emergency Fractile Compliance Achieved
14. Response Time Compliance Regularly Reported
15. Response Time Compliance Regularly Reported - Externally
16. Response Time Compliance Regularly Reported – Publically Available
17. Ambulances Deployed Fully or as Hybrid to match Demand
18. CAD based demand prediction systems used.

Response Time Reliability Continued
19. Regular process to review late calls for special causes
Medical First Response
20. BLS level (or higher) with AED
21. Dispatched to Life Threatening Emergencies & Select Special Cause Calls
22. Track and Report Medical First Responder Response Times
Clinical Care
23. Electronic Patient Care Record
24. Measure ROSC
25. Measure Defibrillator to Patient Side
26. Measure 911 to PCI in STEMI
27. Measure PE/CHF receiving NTG
28. Measure PE/CHF provided NIPPV
29. Measure percentage of ACS defined traumas transported to trauma center
30. Measure ACS trauma cycle time from 911 to trauma center arrival
31. Measure ACS trauma, 10 minute or less scene times
32. Inspect defined sample of medical records for protocol compliance
33. Participate in Research
34. Physician Medical Director 3 or more NAEMSP recommended qualifications
Customer Focus
35. Customer Service Measured
36. Customer feedback reported Organization-wide
37. Customer feedback reported externally
38. Customer feedback loop with employee
Safety
39. Safety Officer Responsibilities Delineated
40. Safety Officer Training
41. Formal Safety Committee
42. Emergency Driver Training Program
43. Required emergency driver refresher training
44. Occupational Safety Training Program
45. Required safety refresher training
46. Use driver monitoring device
Workforce Focus
47. Supervisor to Employee Ratio
48. EMD Mean Salary Comparators
49. EMT Mean Salary Comparators
50. EMT-I Mean Salary Comparators
51. EMT-P Mean Salary Comparators
52. EMS Attrition Rate Identifiers
53. Employee Feedback Routinely Solicited - Internally
54. Employee Feedback Routinely Solicited - Externally
55. National Registry Certification
Leadership
56. Accountable to governing/advisory board
57. Leadership preparation/credentials
58. Use run & Shewhart charts for data analysis
59. Trained/Certified process improvement advisor
Operations
60. ALS Unit Response criteria
61. Non-emergency transfer call criteria
Fleet
62. Fleet size to peak
63. Vehicle Collisions per 100,000 miles reported
64. Vehicle Failures per 100,000 miles reported
65. Fleet tracked with GPS/AVL
Finance & Reimbursement
66. Total System Expenditures Includes All Costs

Finance & Reimbursement continued
67. Per Capita Cost
68. Unit hour cost
69. Transport cost
70. Cost per response
71. Independent Financial Statements are performed AND Required
72. Percent of user fees to subsidy
73. Annual external Medicare billing audits
74. Fees set and regulated externally

Project Management

Our project management methodology is a disciplined and structured approach. The ultimate purpose of this methodology is to make defining, planning and controlling of projects a repeatable, consistent, and successful process. All phases of project management are addressed from inception to completion. This approach will be used to provide a framework for effective management and completion of this project, while providing sufficient flexibility to meet the unique needs of your project.

Our proposed work plan reflects the key elements of the process. Key activities are clearly outlined and logically organized to produce specific deliverables within the defined period of time. We will review our progress against our work plan on a bi-weekly basis to ensure that we are progressing according to plan. Any deviations will be flagged immediately and appropriate action taken, through discussion with you, to address issues.

SECTION III. PROJECT SCOPE

Overview

Fitch & Associates proposes to conduct an evaluation of the Mono County EMS system utilizing a "greenfield" or "whiteboard" approach. These methodologies begin with no preconceptions that the current system is doing what is should be doing and in the manner that produces the greatest benefit.

This structured process allows questioning of the status quo; including services and the manner they are delivered, performance requirements, roles, goals, and visions for the future. All options are available for consideration, and it allows for potential fundamental changes in funding, structure, and activities.

The evaluation process will have two overriding objectives:

1. To recommend actions and decisions based on benefits to patients and the community.
2. To recommend roles and activities based on value – cost versus benefit.

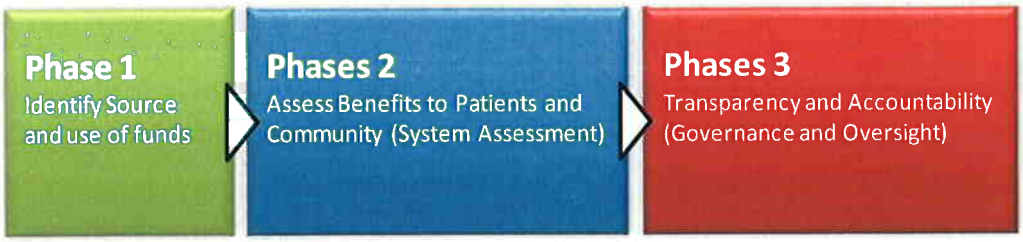
Mono County EMS System Consulting Project Lead

To facilitate scheduling and completion of the project, the Firm will ask that the County assign and empower an employee to act as the EMS System's Consulting Project Lead. This person will interact and meet regularly with the project team members via e-mail, conference calls, and in person. Their primary responsibility will be to be engaged in the project's progress, act as a liaison between the EMS system and the Firm, and provide intervention if any member of the system fails to participate in the evaluation in compliance with the mutually agreed upon deadlines.

Three Module Project

We have devised the project to comprise three modules. The proposed Modules for the evaluation are: Source and Use of Funds, Benefits to Patients and Community, and Transparency and Accountability (See Figure 3).

Figure 3. Three-Module Project



Module 1—Source and Use of Funds

The first step with be to quantify the funding available within the EMS system from all sources.

- Tax funds
- Fee-for-service revenue
- Grants
- Healthcare provider funding

Once the funding is identified, the use of funds will be assessed and quantified. Two questions will be answered. How are funds allocated and distributed within the system? What are the overhead costs for monitoring and coordinating the system?

The purpose of this analysis is to determine the resources available, or potentially available, within the system to support its delivery of services.

Module 2-Benefits to Patients and Community

This phase is devoted to a comprehensive assessment of the EMS system and includes a number of areas of focus including:

- Communication and dispatch
- Quality Management
- Stakeholder Integration
- Call Demand and Response Time Analysis
- Performance requirements and Compliance
- Provider Activities (first responders, ambulance service, medical control)
- Receiving hospitals
- Specialty Care Centers
- Information Management Systems
- Roles, Responsibilities, and Contractual Relationships

- Operations

The result of this phase will be a comprehensive understanding and description of the services being provided within the system and how these services are delivered. It will also provide an inventory of human and physical assets committed to the efforts.

Module 3—Transparency and Accountability

This phase is devoted to an evaluation of the system's governance and oversight. It will include a review of the structure, relationships, and management of the system. Components included are:

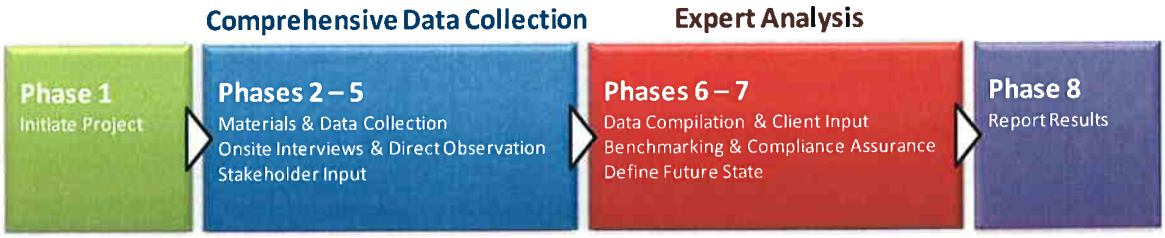
- Foundational documents
- Contracts and agreements
- Internal and external reporting
- Committees' roles, responsibilities, and membership
- State mandates, rules, and regulations
- Monitoring mechanisms
- System-wide quality management and improvement

The outcome of this phase will be a clear understanding of the roles and responsibilities of the system participants and a definition of how activities are monitored and reported.

Eight-phase Project Work Plan

We have organized our work into eight phases. In each phase, we describe the purpose of the phase and what will be included in completing it. The work plan starts with establishing the scope and process, involves comprehensive data collection, and concludes with the final report. All eight phases will be completed within 120 days.

Figure 4. Eight-phase Work Plan



Phase 1—Initiate Project

Phase one is designed to confirm the project schedule and deliverables and to initiate information gathering procedures. The first task involves conducting Level "1" interviews with key members of the EMS system. These will include individual meetings with important stakeholders including:

- County Executive and Staff
- Dispatch representatives
- Fire Agency Leadership
- Medical Director
- Hospital Representatives
- EMS System Consulting Project Lead

The Level "1" interviews provide a candid opportunity to meet with the policy makers of the EMS system and to get a clear foundation for the expectations of the project's goals, management, and outcomes. Included is the reaching of agreement on the framework of the evaluation, a commitment of resources and support to the project, and the initiation of direct dialogue for troubleshooting. The important end-point of phase one is an understanding the expectations of key system leaders and setting the stage for a successful project.

Phase 2-Materials and Data Collection

F Following the Level "1" interviews, we will utilize an Information and Data Request (IDR) instrument to collect detailed information from the County, communications center, billing and collection operations, fire agencies, ambulance provider, and medical stakeholders. The Fitch & Associates' IDR has been used in hundreds of organizations over the last 27 years, but will be modified and targeted to meet the specific objectives of this project. Use of this instrument allows us to access key information about your system and compare your results to other organizations. The instrument is delivered in an electronic format with a defined deadline for completion. The IDR data is essential for shaping initial questions, guiding onsite planning, and shortening follow up requests for materials. Thorough and timely review, completion, and submission of the data expedite the completion of the project.

The IDR component ensures the project team fully understands the current state of the system and forecast the essential elements of the on site evaluation. Commitment to participating in phase two sets a strong foundation for the project's success.

Phase 3—Onsite Interviews and Direct Observation

Prior to the initiation of phase three, the project team will have thoroughly reviewed all materials compiled and submitted as part of the IDR process as well as the notes from the Level "1" interviews. The deployment analysis will be in progress. In Phase 3, we will visit with individuals at various levels of the organization including:

- EMS Agency management and staff
- Fire Administration
- Elected Officials
- County Administration and Finance
- Labor groups
- Receiving hospital personnel
- Dispatch/PSAP management
- Ambulance contractor personnel
- Physicians involved in EMS
- Medical Director
- Elected officials
- Information Management personnel from County, Contractor, Dispatch Centers, and other entities
- Others

The majority of the interactions will occur in either one-on-one or small group interviews around specific processes or operational functions (e.g., dispatch, first response, quality improvement).

Phase 3 is an important component of the review. It allows the consultants to take what they have discovered through the IDR process and add to it by interviewing key stakeholders and observing operational practices. During and immediately following this phase, it is common for the project team to determine what additional information is required.

Phase 4—Stakeholder Input

It is impossible to fully appreciate how a large system operates without seeking broad input from a variety of stakeholders. Through the use of stakeholder meetings, system participants from various entities within the EMS system have an open forum to engage in dialogue about the system, understand history, identify best practices, and highlight opportunities for the future. In Phase 4, the project team will host multiple group meetings. Invitations will be open

to system participants and the process will be facilitated by an experienced team member. The group sessions will be scheduled for two hours, but will go as long as the group requires. Information developed from the groups will be included with the data collected in the first three phases.

Phase 5—Data Compilation and Client Input

At the conclusion of Phase 5, the project team will have collected a large amount of data from requested materials, interviews, and stakeholder meetings. After comprehensive review, the data will be organized and catalogued to facilitate the building of a logical report that meets the scope of work of the project and any additional areas identified. The consultants will visit with targeted system participants to review specific data, ask follow up questions, and gain added perspective to ensure appropriate understanding of what the results reflect. This will conclude requests for data from the client or any of its related entities.

Phase 6—Benchmarking Process

In this phase, the project team will review the data collected from the Mono County's EMS system and compare it to available benchmark data, key industry standards, contemporary research, and with other systems of similar model and demand that are in the Firm's database of client reviews.

Phase 7—Define Future State

A key outcome of the project is to provide you with a clear understanding of the EMS system's current performance, prioritized actions for improvement, and recommend potential future states. The County seeks to determine creative ways efficiencies and effectiveness could be improved and seeks to objectively review potential options for delivering cost-effective high quality EMS.

In Phase 7, the project team will develop a list of recommendations for improving processes to effectively integrate the activities of system participants to provide EMS consistent with industry benchmarks. The recommendations will be designed to ensure:

- equity of response times,
- quality clinical care,
- appropriate utilization of resources,
- optimization of revenue recovery, and
- Cost-effective delivery of services.

The report will outline multiple options for future actions and options for the EMS system and discuss the pros, cons, and financial impact of each. This phase will be where the key results of the project come together.

The specific tasks required regarding the evaluation of the existing EMS agreements and recommendations for provisions to be included in future agreements to improve clarity of expectations, accountability, transparency, and funding allocations will be undertaken and developed in this phase

Phase 8—Report Results

The deliverables from Phases 1 through 7 will be consolidated into a formal narrative report. A discussion draft of the report will be provided for review as decided in conjunction with the County's project lead. The final report will be delivered electronically within the 120 day project time frame.

The results will formally be presented in person at the conclusion of the project. This will also allow stakeholders to have a question and answer session with members of the consulting team. The presentation will occur at a time and location mutually agreed upon with the County.

Project Highlights and Unique Components

This section highlights some of the consulting activities and briefly describes several key projects to be completed within the overall study but also illustrates how these could be shaped independently as a stand-alone component. For each we have outlined in which Module the activity description would occur.

Stakeholder Input

The performance of an EMS system is dependent upon the activities and participation of multiple agencies and individuals. It is not solely confined to the ambulance service. In order to understand the system and to clearly document expectations and performance, it is necessary to gather input from system stakeholders, decision-makers, and participants. This is accomplished through individual interviews, group meetings, and workshops. The goal of this collaborative process is to identify issues and opportunities within the EMS system and be able to develop recommendations for changes that are acceptable to the community and achieve the performance goals identified by the system stakeholders.

These interactions offer the consulting team the opportunity to fully understand the constraints within the current system, the desires for system changes, and allow the consulting team to provide information to the stakeholders regarding the project. This process is essential to develop trust in the results of the engagement and to facilitate the acceptance of the project's recommendations and design changes.

Cost and Performance Review

The current EMS system design represents a close relationship between the County and system participants including first responder agencies, trauma centers, receiving facilities, dispatch centers, and it's EMS. The financial performance of the system will be reviewed including the quantification of funding sources and the allocation of system revenue. The ultimate goal is to ensure that the citizens are receiving good value for their support of EMS.

Communications and Dispatch

Conduct a review of the communications and dispatch activities and provide and benchmark performance with industry measures. The communications and dispatch influences and often controls the resulting performance of the first responders and ambulances. It is necessary to fully understand this essential function in order to clarify responsibilities and define performance standards.

Quality Management

Review the existing quality management activities in the EMS system and develop recommendations to aid in the implementation of a system-wide, comprehensive, and robust Quality Management System for all EMS system participants.

First Responder/Contractor Integration

The success of the EMS System is dependent on the close working relationships between the first responders and ambulance personnel. This focus area will concentrate on enhancing collaborative efforts and activities within the system and clearly defining expectations.

Call Demand and Response Analysis

Historical EMS call volume will be mapped along with the road and geographic structure of the County. The primary purpose will be to address appropriate response time performance standards and to ensure equitable service to all areas of the County. The results of this analysis will support defining response time performance requirements for the County.

Information Management Systems

Documentation practices will be reviewed and recommendations developed to provide useable and timely information dissemination throughout the EMS system. Technology is available to streamline many of the documentation processes and provide for better analysis and use of the data for patient care documentation, trauma and other patient outcomes, quality management, and performance monitoring.

Roles, Responsibilities and Contractual Relationships

The performance and functioning of EMS systems is dependent upon the establishment of clear expectations and defining those expectations in agreements. The roles and responsibilities of all system participants need to be well understood and defined. This includes the roles, responsibilities, and functions of the EMS Agency. Contractual relationships, county ordinances, and state regulations will be reviewed and recommendations made for improving clarity and performance expectations.

Operations

All aspects of operations will be reviewed including dispatch, first response, receiving facilities, medical control, and ambulance response and transport. We must fully understand how the system is functioning in order to develop recommendations for improvements and to codify realistic performance expectations in the system design. Information garnered in this process will also be used to educate the elected officials, stakeholders, and public on its EMS—today and future opportunities.

System and organizational issues

All EMS systems have multiple agencies and individuals interacting to deliver emergency medical services. The relationships and collaboration of these system participants largely determine the effectiveness of EMS. We will solicit input from various stakeholder groups to understand the issues existent within the system and develop strategies to mitigate problems while enhancing the positive activities within the system.

Work Plan and Timetable

The Proposed Scope of Services Yields Desired Outcomes

The proposed scope of work demonstrates that the consultant understands the desired outcome and has proposed projects and tasks to achieve that outcome. A table for each of the

proposed phases, activities, and time frames is included in this section to describe the project more clearly. We have outlined the projects and tasks based upon accomplishing the project within a 120-day completion schedule.

Figure 5. Proposed Work Plan

Phase/Task		Week (Days)										
		1 (7)	2 (14)	3 (21)	5 (35)	6(42)	7(49)	10(70)	12(84)	15 (105)	16 (113)	17(120)
Phase 1	**Initiate Project**											
1.1	Identify County project lead											
1.2	Identify level "1" interviews											
1.3	Schedule onsite											
1.3.a	Draft interview schedule											
1.4	Level "1" interviews											
1.5	Review interview data											
Phase 2	**Materials & Data Collection**											
2.1	Identify entities & responsible contact(s)											
2.2	Identify & request financial documents											
2.3	Modify IDR for system & respondents											
2.4	Distribute IDRs											
2.5	Distribute deployment data request											
2.6	Monitor data collection progress											
2.7	Receive materials & data											
2.8	Organize & catalog											
2.9	Consultant review of materials & data											
Phase 3	**On-Site Interviews & Direct Observation**											
3.1	Identify level "2," 3"," & "4" interviewees											
3.2	Schedule onsite (2-3 days)											
3.2.a	Draft interview schedule											
3.2.b	Schedule communication center visit											
3.2.c	Schedule observation activities											
3.3	Develop interview outcomes											
3.4	Onsite interviews & observations											
3.5	Organize & catalog											
3.6	Consultant review of data											
Phase 4	**Stakeholder Input**											
4.1	Identify venues											
4.2	Schedule meetings & distribute invitation											
4.3	Develop stakeholder questions											
4.4	Conduct stakeholder group(s)											
4.5	Consultant review of data											
Phase 5	**Data Compilation & Client Input**											
5.1	Consultant review of collective data											
5.2	Analyze financial data											
5.3	Follow up contact of client system members											
Phase6	**Benchmarking & Compliance Assurance**											
6.1	Identify similar & best practice systems											
6.2	Benchmark EMS system											
6.3	Compliance review											
Phase 7	**Define Future State**											
7.1	Develop future states											
Phase 9	**Report Results**											
8.1	Drafting of report											
8.2	Discussion draft											
8.3	Client review & input											
8.4	Drafting of final report											
8.5	Final report delivery (Electronic Format)											
8.6	Final report presentation											

Note: Predicted timelines are estimates. Multiple tasks may be in progress simultaneously and tasks may be completed earlier and/or later than estimated depending on project activities and progression. *Exception* - the draft report and final report will be delivered on time.

SECTION IV. QUALIFICATIONS OF FITCH & ASSOCIATES, LLC

Fitch & Associates, LLC is pleased to submit this proposal for consideration of Mono County.

Company Information

Fitch & Associates, LLC is a Delaware Limited Liability Company. Fitch & Associates was established as a corporation in 1984 and converted to a limited liability company in 1996. The Firm is located in Platte City, Missouri, a suburb of Kansas City.

One of the Firm's three partners will actively participate in the project—Richard A. Keller. The primary contact for this contract is Richard Keller. Mr. Keller has extensive experience with EMS system design, operations, ambulance service cost analysis, and reimbursement throughout North America and extensively in California.

Following is our physical and mailing address and contact information.

Richard A. Keller
Fitch & Associates, LLC
2901 Williamsburg Terrace #G
PO Box 170
Platte City, Missouri 64079
E rkeller@emprize.net
T 816.431.2600
F 816.431.2653

Specific Strengths for the Mono County Project

Our Firm's specific strengths for this project are centered in our ability to objectively conduct the research, manage multiple project priorities and blend both expert and local resources while building support for the outcome. Fitch & Associates has direct experience in complex assessments and developing agreements in politically difficult environments. It has successfully reviewed and developed agreement considerations/procurement documents for more governmental agencies than any other EMS consulting firm. The firm has extensive recent and on-going experience in California.

Five key strengths include talented and experienced consultants; time tested methods; teamwork; timeliness; and tangible results.

Talent

Each client project is managed by one of the partners who are responsible for bringing together the specific resources necessary to meet the client's needs. The Fitch & Associates team for Mono County involves six members. The team members have been selected for their specific areas of expertise that match the requirements of this project.

The following is a summary listing of individuals, their position and their primary responsibility for the Mono County project.

Full biographical summaries for the team members are appended. Table 2 summarizes the individuals, their position, and their primary responsibility for the project.

Table 2. Proposed Staff

Staff Member	Position	Primary Responsibility
Richard Keller	Partner, Fitch & Associates, 26 years.	Project oversight – Cost and performance analysis stakeholder input, future options analysis and reporting.
Michael Ragone	Senior Associate, three years with the Firm – 25 years Emergency Services provider/Leader in Fire and EMS	First responder liaison. On-site data collection. Benchmarking project. Support recommendations development.
Guillermo Fuentes	Senior Associate, Fitch & Associates, decades of experience in management of EMS and Law Enforcement, Expert in deployment and demand analysis	Call demand analysis, dispatch and communications
Michael Greene	Senior Associate, five years with the Firm – 25 years Emergency Services provider/Leader in Air Medical and EMS	Quality management systems, on-site data collection and analysis. Support recommendations development.
Dianne Wright	Senior Consultant, Fitch & Associates with the firm for 15 years. Fire Administration and government finance	Budget and financial analysis, funding sources and expenditure allocation analysis
Tom Little	Senior Consultant, Fitch & Associates with the firm for 25 years. EMS management	On site data collection and benchmarking analysis

Project Staffing

Fitch & Associates believes strongly in working in high performance teams that produce quality results. We strive to bring together project teams that include professional consultants with strong educational backgrounds and frontline career experience. Team member competencies are targeted at the specific objectives of each client project. There are six (6) members of the project team and administrative office staff will provide clerical support. The team for this project will include the following:

Richard A. Keller, Partner

Rick will be the partner in charge of the project and will be the primary driver behind strategic project planning as well as coordinating all tactical executions of related activities. After working collaboratively with you and your agency to chart the direction of the project, Rick will assign specialists within our firm their responsibilities and hold them accountable for delivering on time and on budget in addition to directly supporting the data collection and analysis. He will also be directly involved in the data collection and analysis and responsible for the project focus areas of finance, reimbursement, and regulatory compliance.

Rick is a partner of the firm. A national expert in EMS operations, finance, and resource utilization, he has led consultations with a diverse array of EMS clients. His responsibilities are centered upon improving system efficiency, enhancing financial performance, designing flexible deployment plans, and structuring agreements between public authorities and between public authorities and private contractors for the provision of emergency medical services.

Most recently, he served as the director of the Alameda County and Napa County (California) System Reviews and Procurement Projects.

Michael Ragone – Senior Associate

Mr. Ragone's operations and executive experience in emergency services, health and safety and the insurance industries provide a unique background for clients. His experience as a firefighter, paramedic and licensed insurance agent provide an excellent community prospective for our clients. He served more than 12 years as a vice president of American Medical Response (AMR) with responsibilities in both operations and business development, prepared him well. He leads the *Fitch* fire service practice and regularly speaks at national fire-service conferences including 2010 Fire Rescue Med and Fire Rescue International. He also serves on the IAFC's Environmental Sustainability Committee and is an active fire fighter with a Missouri fire district. He is the author of the 2011 200 City Survey published by the *Journal of Emergency Medical Services* and co-author of the recent Focus Report on EMS and Fire published by the International City and County Management Association.

Guillermo Fuentes

Mr. Fuentes has broad experience in the areas of communications, operations and administration. He provides statistical and operational analysis, computer modeling and the development of deployment plans for Fitch & Associates' clients. He has previously been the Chief Administrative Officer of the Niagara Police Agency and was Associate Director of EMS for the Region of Niagara, Canada. In Niagara Region, Mr. Fuentes' responsibilities include

managing the transition from a Provincial to a Regional operated communications center including personnel, and administrative process development. Between 1990 and 2004 he was employed by Urgentes-Sante, the EMS system serving Montreal, Canada. As Deputy Director of Operations, Mr. Fuentes supervised 1,100 staff members responsible for operations, communications, support services and scheduling functions.

Dianne Wright

Dianne Wright is an experienced local government administrator and consultant. She served almost 20 years in leadership roles in south Florida. Her most recent government role was as Assistant Director of Fire-Rescue Services for Miami-Dade County, Florida, reporting directly to the Fire Chief, David R. Paulison. Miami-Dade Fire-Rescue is one of the largest and most complex transporting departments in the southeastern U.S.

For more than 10 years, Ms. Wright was the senior staff executive and chief financial officer at the Fire-Rescue Department. Bureaus that reported directly to her included: personnel services, EMS, management information, and finance. During her tenure, Ms. Wright managed documentation, reimbursement procedures, and processes to collect more than $15 million from FEMA for Hurricane Andrew damages and emergency operations.

In addition to Ms. Wright's work with Fitch & Associates, she has also served as a Senior Consultant/Analyst for five years with the State of Florida, Governor's Financial Emergency Oversight Board for the City of Miami and Project Manager for the Miami Urban Area Security Initiative (UASI) Homeland Security Grant. Ms. Wright has regularly been part of the Fitch & Associates' consulting team for more than 12 years and is a graduate of the Accelerated Ambulance Services Manager (ASM) program sponsored by the American Ambulance Association.

Michael Greene, MBA- Senior Associate

Mr. Greene's EMS and air medical and EMS career spans 25 years. From volunteer search and rescue to backcountry ranger with the National Park Service to chief flight nurse and program director of a five state air medical transport service, he is passionate about improving and growing EMS/air medical services. In his role with the firm he routinely reviews air medical, critical care transport, and quality management programs. He holds a BSN degree from Loretto Heights College in Denver and received his MBA/MSHA from the University of Colorado.

In 2003, Mr. Greene was named Program Director of the Year by the Association of Air Medical Services. He has written numerous academic papers and articles, including a chapter on

operations management for *Standards for Specialty Care and Fixed Wing Transport* published by the Air and Surface Transport Nurses Association.

Tom Little

Prior to his work with the Firm, Tom served as a County EMS Director, owned Medvac MidAmerica serving Topeka, Kansas and Independence, Missouri. Mr. Little's company was subsequently acquired by AMR, where he managed systems in communities with populations ranging between 100,000 and 250,000 and is familiar with the unique operational dynamics of providing emergency services through a wide variety of service models. In recent years, he has been involved in a number of operational assessments for the Firm and has directed a regional paramedic service for Heartland Health in St. Joseph, Missouri on behalf of the Firm's MedServ affiliate.

Mr. Little will manage the logistics of facilitating on- and off-site meetings and focus groups and be the primary conduit for comprehensive data collection. In addition, he will provide leadership in identifying and developing performance metrics and recommendations and be engaged in the drafting of the consultant findings.

Time Tested Methodologies

Fitch & Associates' methodologies are time tested. The experience of the Firm and the individual consultants involved represent an unparalleled experience base for the tasks at hand.

The firm has been involved in nearly 1,000 consultations representing a diverse client base including local governments, state governments, municipal, private, and volunteer ambulance services, hospitals, and fire departments.

Teamwork

Throughout its history, Fitch & Associates has stayed true to its core values by accomplishing projects using a collaborative approach. This approach offers high levels of involvement for system participants without compromising the independent or objective nature of the project.

Timeliness

The firm is known for producing its work on or before the scheduled completion date. Timeliness also involves consultant access and response times. Both are important in consulting, as they are in emergency services.

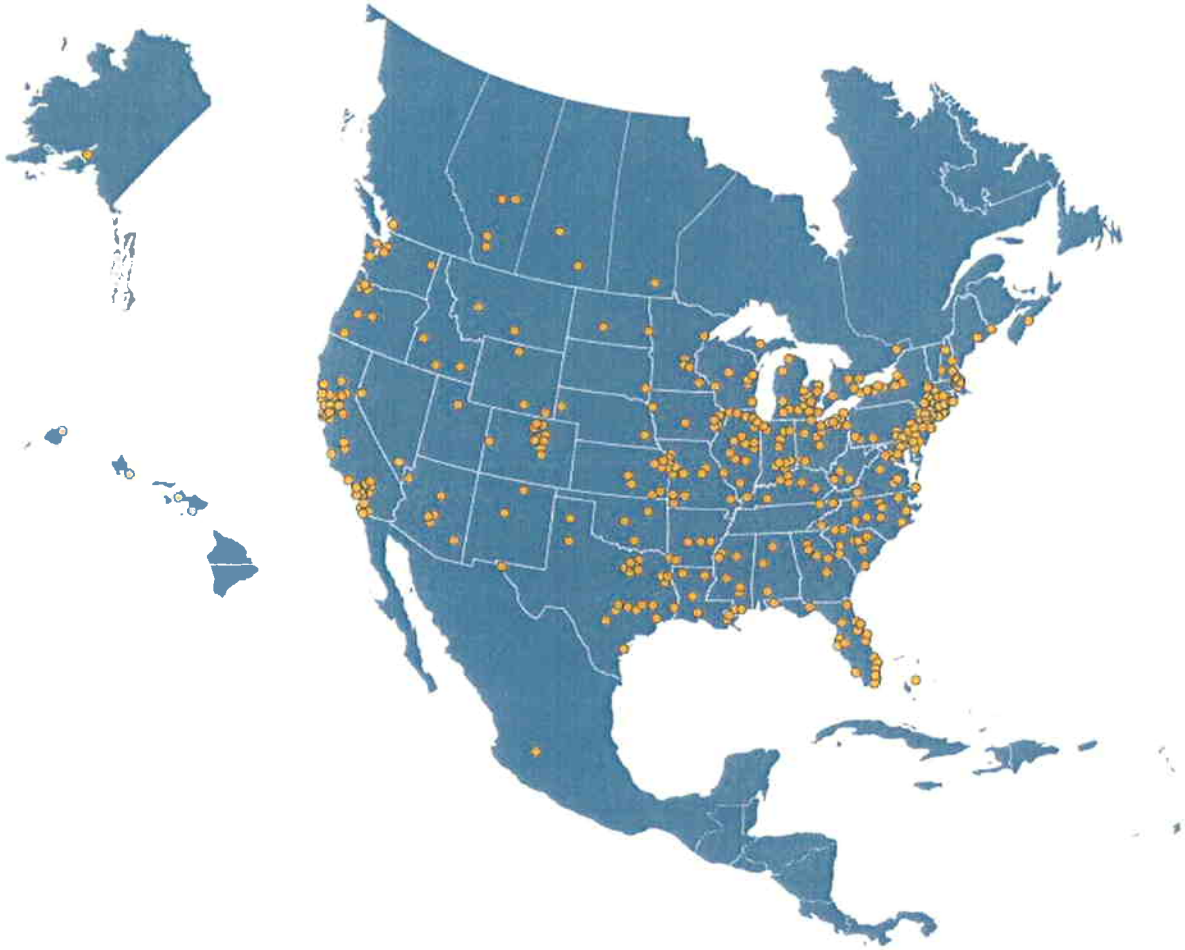
Tangibles

Tangible results in consulting mean developing solutions addressing the client's needs *and* providing recommendations that are implemented. Fitch & Associates is known for developing innovative solutions to complex EMS issues. Our recommendations and tangible work products have been implemented with greater frequency than those of any other national EMS consulting firm.

Organizational History

Throughout its 27-year history, Fitch & Associates has earned credibility by implementing innovative customized solutions that cross both public and private sectors in the healthcare and public safety arenas. The Firm has consulted with over 1,000 organizations in 49 US states and in 13 other countries.

Figure 6. Map of North American Client Engagements



Projects have ranged from objective reviews, analysis and system design issues to detailed operational, financial, and transitional management. We have developed, and managed on an interim basis, both ground and air EMS systems for major American cities and foreign Heads of State.

The Firm specializes in EMS/public safety consulting. Founded by Joseph J. Fitch, Ph.D. in 1984, partners Richard A. Keller and Christine M. Zalar joined the Firm in 1985. The Principals have managed, and developed, some of the most diverse and innovative EMS systems in North America. The resources of the Firm blend EMS/healthcare management and clinical experience with the expertise gained from extensive consulting assignments during the past two decades.

In addition to the three partners, Fitch & Associates employs full-time senior associates, consultants, and support staff members. The Firm regularly utilizes more than half a dozen project affiliated content experts.

The Firm's consulting resources are provided by its employees, which includes core and project affiliated consultants. These resources provide expertise on matters as diverse as organizational psychology, accounting, economics, healthcare administration, public information and education, marketing research, emergency medicine, fire service administration, and law enforcement.

The Firm's success is attributable to its experience, its credibility, and the solid consulting methodologies it develops and applies to reflect individual situations. System stakeholders are typically deeply involved in the consultation process. Our collaborative approach facilitates support for implementation and long-term system sustainability. Project research outcomes are identified within a framework that is community specific and characterized as having absolute integrity with respect to comprehensiveness, objectivity, and accuracy. We do not have any relationships with any entity that would influence the work of this project.

Experience and Credibility Improving the Quality of EMS

Since its inception, the Firm has earned a track record of helping organizations to improve the quality of care, decrease response times, increase financial effectiveness, and strengthen public trust in EMS.

At Fitch & Associates, we endeavor to advance the EMS profession as a whole. Our staff members are regular participants in association activities, are involved with trade journals, hold appointed board positions, and serve as faculty for numerous EMS association conferences.

Principals of the Firm often participate in State and National EMS Conferences, and both individual training and educational programs sponsored by provider-organizations.

For more than 18 years, Fitch & Associates has sponsored the EMS Leadership Conferences. Additionally, Fitch & Associates sponsors other workshops and seminars on pertinent current issues. The Firm manages and conducts the Ambulance Service Manager's course for the American Ambulance Association. This program has provided EMS specific training to more than 400 ambulance service managers from the private and public sector over the last 10 years. The Firm also developed and conducts the Communications Center Manager's Course, a national certification program for police, fire and EMS communications management personnel, under the auspices of the National Academies of Emergency Dispatch.

As a firm, and individually, we are frequent contributors to influential industry publications, including *The Journal of Emergency Medical Services, Emergency, Fire Chief, The Air Medical Journal, Hospital Aviation,* and *The Ambulance Industry Journal.* Members of the firm are on the Editorial Boards of *Best Practices in Emergency Services*, and the *The Journal of Emergency Medical Services* The Firm contributed heavily to the American Ambulance Association workbook: "Contracting for Ambulance Services." Members have testified as experts in federal safety hearings conducted by the National Transportation Safety Board (NTSB), federal and state court proceedings and in regulatory matters.

Other documentation supporting the consultants' relevant experience

In addition to the Firm's extensive work history of providing high quality comprehensive EMS system evaluation in many of the most populous metropolitan areas in North America, Fitch & Associates is the leading authority on EMS system design, performance, and leadership. This is best reflected in the conferences, articles, and texts developed by the Firm to enhance the EMS industry. The following represents a list of our contributions.

Books and Chapters

- "EMS Deployment and System Status Management" a chapter contribution in Paramedic Practice Today, Edited by B. Aehlert (St. Louis, Missouri: Mosby, 2009)
- Fitch, J.J. (2004). *PreHospital care administration: The industry's best articles, essays, and case studies on the toughest EMS issues (2nd Ed.)*. San Diego, CA: JEMS.
- Fitch, J.J. (2002). Volunteers. In A.E. Kuehl (Ed.), *PreHospital Systems and Medical Oversight* (pp. 460-465). Dubuque, IA: Kendall/Hunt Publishing Company.
- Zalar, C.M. (1996). Marketing the Aeromedical Program. In R.S. Holleran (Ed), *Flight nursing: Principles and practice (2nd Ed.)*. St. Louis, Missouri: CV Mosby.

- Fitch, J.J., Keller, R.A, & Zalar, C.M. (1993). *EMS management: Beyond the streets.* Carlsbad, CA: JEMS.
- Keller, R.A. (1992). PreHospital Communications Systems. In R.A. Dieckmann (Ed.). *Pediatric emergency care systems: Planning and management*. Baltimore, MD: Williams & Wilkins.
- Fitch, J.J, & Raynor, D. (1989). *Service first*. Kansas City, Missouri: Fitch & Associates.

Significant Industry Publications

- "Making Smart Decisions About Fire and Emergency Medical Services in a Difficult Economy: [Item No. E-43636] (jointly authored with Ragone, M. & Griffiths, K.) (2010). InFocus Report, 42/5, Washington, DC: International City and County Management Association (ICMA).
- Fitch, J.J., Keller, R.A., & Williams, D.M. (2005). EMS in critical condition: Meeting the challenge [Item No. E-43338]. *IQ Report, 37*(5), Washington, DC: ICMA.
- Ragone, M (2010, February). 200 JEMS 200-city survey: Are we ready for the future? *Journal of Emergency Medical Services, 36*(2), p.38-43.
- Fitch & Associates is contracted to conduct the research and author the two leading EMS industry benchmark surveys for the *Journal of Emergency Medical Services*.

Conferences and Leadership Programs:

- Pinnacle: Annual National EMS Leadership Conference sponsored by Fitch & Associates
- Accelerated Ambulance Service Manager's Certification Program sponsored by Fitch & Associates and The Management Training Institute of The American Ambulance Association
- Communication Center Manager Course sponsored by Fitch & Associates and the National Academies of Emergency Dispatch.

Members of the firm regularly present at more than a dozen other national and regional conferences each year representing multiple sectors within the industry (e.g. fire, private, non-profit, hospital and air medical conferences.)

The Firm's earnest commitment to keep abreast of and contribute positively in a rapidly changing healthcare environment and the EMS sector is demonstrated by involvement with multiple professional associations. These include:

- The American Association of Healthcare Consultants
- The Association of Critical Care Transport

- The American College of Emergency Physicians
- The National Association of EMS Physicians
- The Association of Air Medical Services
- The American College of Healthcare Executives
- The American Ambulance Association
- The EMS Management Training Institute
- The International Association of Fire Chiefs
- The American Hospital Association
- The American Management Association
- The National Academies of Emergency Dispatch
- The National Flight Nurses Association
- The Emergency Nurses Association
- The National Association of Emergency Medical Technicians
- The International City and County Managers Association
- The American Society for Testing and Materials
- The Foundation of Air Medical Research

SECTION IV. FEE ESTIMATE

Fitch & Associates estimates that the project will require 344 consultant hours. The following table reflects an estimate of how the consultant hours will be distributed across project phases and staff responsibilities.

Table 3. Number Days by Consultant

Total Project Days & By Consultant							
Phases	**Keller**	**Ragone**	**Fuentes**	**Greene**	**Wright**	**Little**	**Total**
Phase 1 – Initiate project	0.5	0.5	0	0	0.5	0	**1.5**
Phase 2 – Materials & data collection	0.5	0.5	0.5	0.5	1	0.5	**3.5**
Phase 3 – Onsite Interviews & direct observation	2	2	1	2	1	2	**10**
Phase 4 – Stakeholder Meetings	1	1	0	0	1	0	**3**
Phase 5 – Data compilation & client input	1	1	1	1	1	0	**5**
Phase 6 – Benchmarking & compliance assurance	0.5	0.5	0	0	0	1	**2**
Phase 7 - Define future state	1	1	1	0	1	0	**4**
Phase 8 - Formal report of results	1.5	1.5	1	1	3	0	**8**
Total Project Days	**8**	**8**	**4.5**	**4.5**	**8.5**	**3.5**	**37**

Consultant Project Work **$62,400**

Includes all on and offsite project development, meetings, data collection and review, and report and presentation development. The professional service fee is $250 per partner hour and $200 per consultant hour. The estimated time commitment equals 37 consulting days.

Travel and Expenses **$6,240**

Includes all airfare, rental car, lodging, and meals.

PROJECT TOTAL **$68,640**

FITCH KNOWS.